

CLAIMS

We Claim:

- 1 1. A method for testing a frequency converter comprising:
 - 2 (a) displaying labels for a plurality of mixing products; and,
 - 3 (b) in response to a user selecting a first mixing product from the
 - 4 plurality of mixing products, performing the following:
 - 5 (b1) calculating appropriate frequencies for the first mixing
 - 6 product, and
 - 7 (b2) determining a measurement configuration for the first mixing
 - 8 product.
- 1 2. A method as in claim 1 wherein in (a) the labels are obtained from a
- 2 table defining the plurality of mixing products.
- 1 3. A method as in claim 1 wherein (b1) includes using parameters for the
- 2 frequency converter.
- 1 4. A method as in claim 1 wherein (b1) includes using parameters for the
- 2 frequency converter and measurement parameters obtained from the user.
- 1 5. A method as in claim 1 wherein (b) additionally includes performing
- 2 the following:

3 (b3) sending commands to hardware to make measurements.

1 6. A method as in claim 5 wherein the hardware in (b3) includes tester
2 hardware and an external local oscillator.

1 7. A method as in claim 1 wherein in the plurality of mixing products
2 include at least one of the following measurements:

3 Match Input;

4 Match Output;

5 Match local oscillator (LO);

6 Isolation In->Out;

7 Isolation LO->Out;

8 Isolation Out->In;

9 Isolation LO->In;

10 Isolation Out->LO;

11 Isolation In->LO;

12 Conversion Gain vs. Input Power;

13 Input Match verses Input Power;

14 Spur Table;

15 Image Rejection;

16 Swept Spur;

17 Conversion Gain;

18 Gain compression.

1 8. A method as in claim 1 wherein (b2) includes using measurement
2 parameters obtained from the user.

1 9. An interface for a tester comprising:
2 a table that defines a plurality of mixing products, the table including
3 labels for the plurality of mixing products;
4 a first display interface that displays at least a subset of the labels; and,
5 a processor that, in response to a user selecting a first mixing product
6 from the plurality of mixing products, calculates appropriate frequencies for the
7 first mixing product, and determines a measurement configuration for the first
8 mixing product.

1 10. An interface as in claim 9 wherein in the plurality of mixing products
2 include at least one of the following measurements:

3 Match Input;
4 Match Output;
5 Match local oscillator (LO);
6 Isolation In->Out;
7 Isolation LO->Out;
8 Isolation Out->In;

- 9 Isolation LO->In;
- 10 Isolation Out->LO;
- 11 Isolation In->LO;
- 12 Conversion Gain vs. Input Power;
- 13 Input Match verses Input Power;
- 14 Spur Table;
- 15 Image Rejection;
- 16 Swept Spur;
- 17 Conversion Gain;
- 18 Gain compression.

1 11. An interface as in claim 9 wherein when determining a measurement
2 configuration for the first mixing product, the processor uses measurement
3 parameters obtained from the user.

1 12. An interface as in claim 9 wherein when calculating appropriate
2 frequencies for the first mixing product, the processor uses parameters for the
3 frequency converter.

1 13. An interface as in claim 9 wherein when calculating appropriate
2 frequencies for the first mixing product, the processor uses parameters for the
3 frequency converter and measurement parameters obtained from the user.

1 14. An interface as in claim 9 wherein the processor sends commands to
2 tester hardware to make measurements.

1 15. An interface for a tester comprising:
2 table means for defining a plurality of mixing products, the table
3 including labels for the plurality of mixing products;
4 interface means for displaying at least a subset of the labels; and,
5 processor means for, in response to a user selecting a first mixing product
6 from the plurality of mixing products, calculating appropriate frequencies for
7 the first mixing product, and determining a measurement configuration for the
8 first mixing product.

1 16. An interface as in claim 15 wherein in the plurality of mixing
2 products include at least one of the following measurements:

3 Match Input;
4 Match Output;
5 Match local oscillator (LO);
6 Isolation In->Out;
7 Isolation LO->Out;
8 Isolation Out->In;
9 Isolation LO->In;
10 Isolation Out->LO;
11 Isolation In->LO;

12 Conversion Gain vs. Input Power;
13 Input Match verses Input Power;
14 Spur Table;
15 Image Rejection;
16 Swept Spur;
17 Conversion Gain;
18 Gain compression.

1 17. An interface as in claim 15 wherein when determining a measurement
2 configuration for the first mixing product, the processor means uses
3 measurement parameters obtained from the user.

1 18. An interface as in claim 15 wherein when calculating appropriate
2 frequencies for the first mixing product, the processor means uses parameters
3 for the frequency converter.

1 19. An interface as in claim 15 wherein when calculating appropriate
2 frequencies for the first mixing product, the processor means uses parameters
3 for the frequency converter and measurement parameters obtained from the
4 user.

1 20. An interface as in claim 15 wherein the processor means sends
2 commands to tester hardware to make measurements.